In the Specification

Please replace the formula on page 6 with the following formula:

$$L_j = \ln \frac{P(u_j = +1|\mathbf{y})}{P(u_j = -1|\mathbf{y})} = \frac{\displaystyle\sum_{\substack{(s',s) \\ u_j=+1}} p(s',s,\mathbf{y})}{\displaystyle\sum_{\substack{(s',s) \\ u_j=-1}} p(s',s,\mathbf{y})} = \frac{\displaystyle\sum_{\substack{(s',s) \\ u_j=+1}} \alpha_{j-1}(s')\gamma_j(s',s)\beta_j(s)}{\displaystyle\sum_{\substack{(s',s) \\ u_j=-1}} \alpha_{j-1}(s')\gamma_j(s',s)\beta_j(s)}.$$